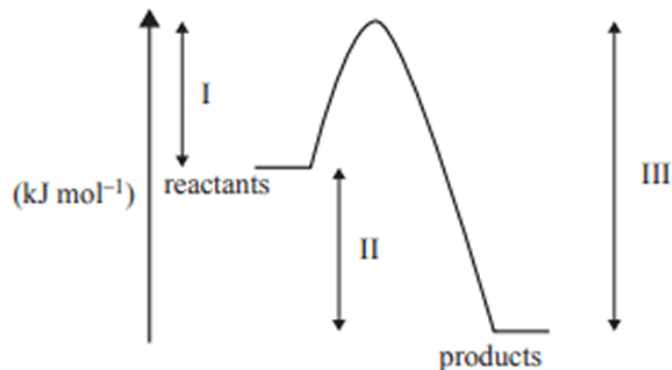


Energy profile -video worksheet

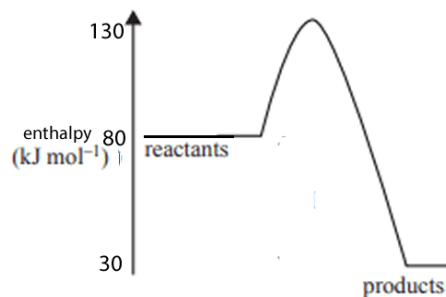
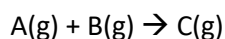
1. Consider the following energy profile for a particular chemical reaction, where I, II and III represent enthalpy changes during the reaction.



Which one of the following statements is correct?

- A. The activation energy for the reverse reaction is (III – II).
- B. The net energy released for the forward reaction is represented by II.
- C. The energy required to break the reactant bonds is represented by II.
- D. The energy released by the formation of new bonds is represented by I.

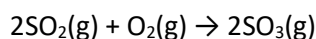
2. Consider the following energy profile for a particular chemical reaction given below



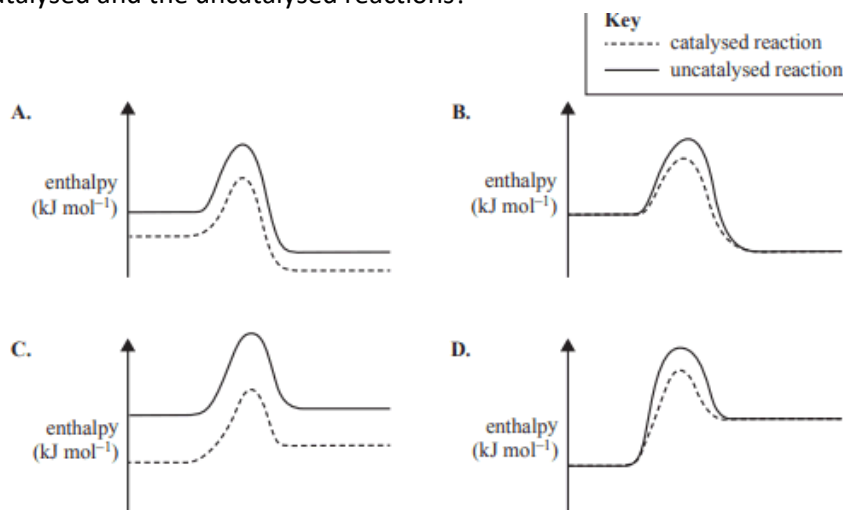
Which of the following statements is/are correct?

- A. The activation energy for the $\text{C(g)} \rightarrow \text{A(g)} + \text{B(g)}$ is 50 kJ/mol.
- B. The net energy released for the forward reaction is 50 kJ/mol.
- C. The energy required to break the reactant bonds is 130 kJ/mol.
- D. The energy released by the formation of new bonds is 100 kJ/mol

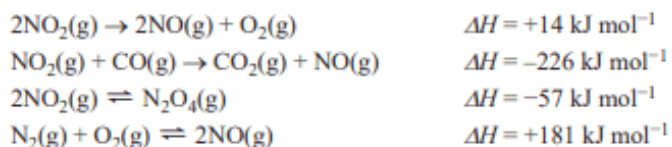
3. The oxidation of sulfur dioxide is an exothermic reaction, as shown in the equation below.



The reaction is catalysed by vanadium(V) oxide. Which one of the following energy profile diagrams correctly represents both the catalysed and the uncatalysed reactions?



4. Consider the following chemical equations.



Write the equation for the reaction represented by the graph below?

